Logistics E-Business/E-Commerce Capabilities Overview
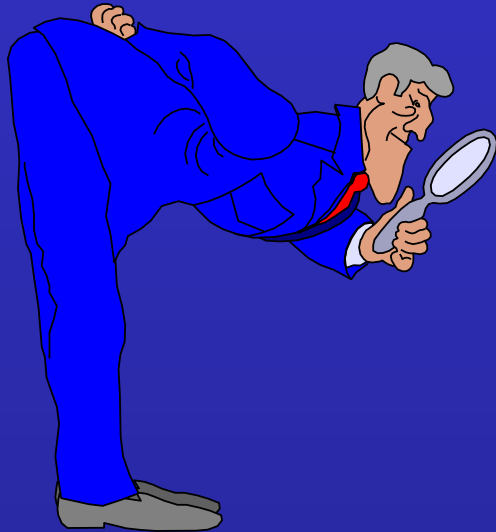
Electronic Business Server (EBS)
and
Electronic Commerce Warehouse (ECW)

Agenda

- History
- EBS
  - Product Description
  - Architecture
  - Communications
  - Translation
  - Routing
- ECW
  - Definitions
  - Architecture
- Logistics EB/EC Architecture
  - Example
  - Methodology

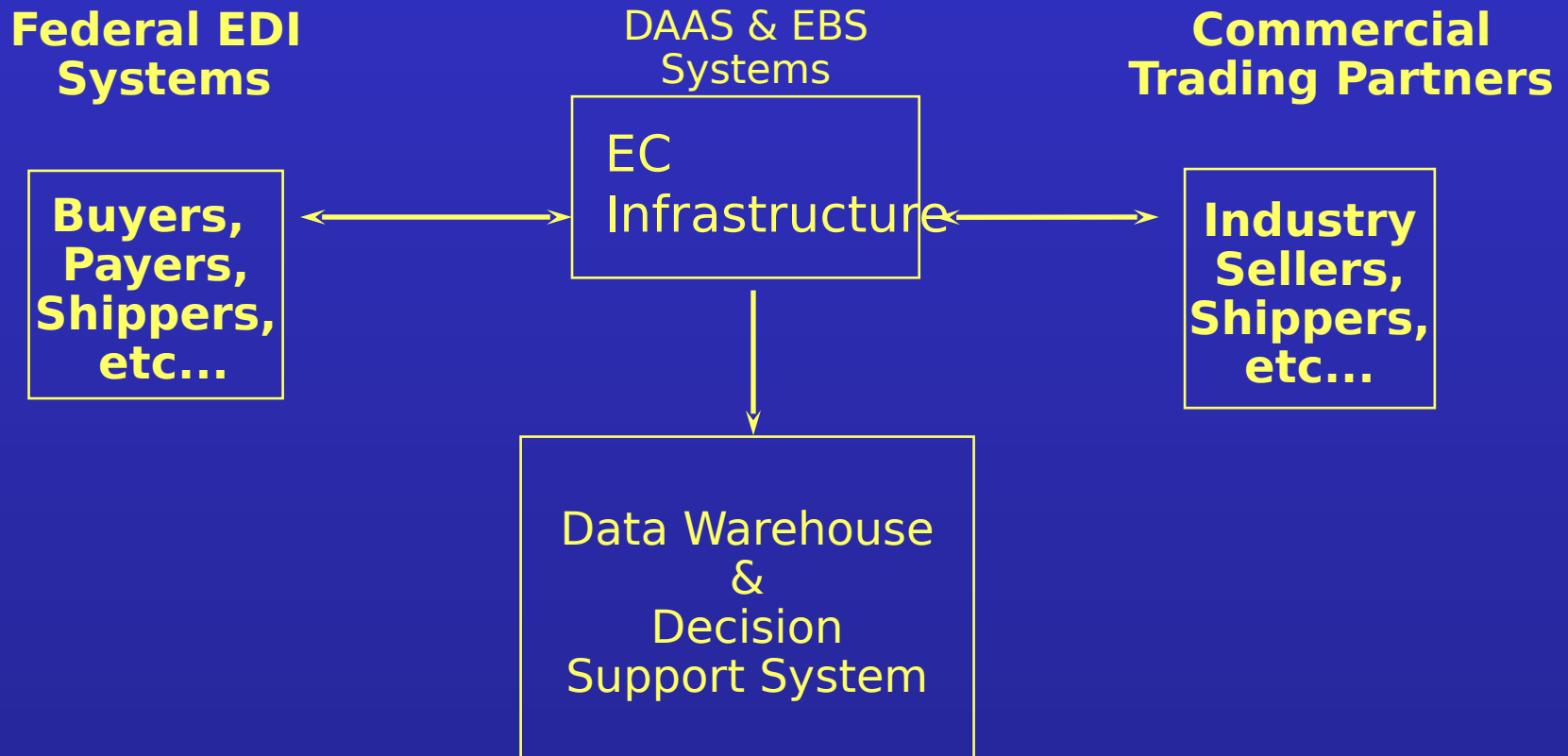**Let's take a closer look at that EBS and ECW software**

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EBS History

- DISA replaces legacy Network Entry Point software resident at Defense Mega Centers

- COTS & GOTS products integrated to address specific EC/EDI requirements (Operational - 1996)
  - Communications interfaces
  - Message processing
  - Messaging logging
  - High throughput
  - Message auditability
  - Security
  - Reliability
  - Translation (1998)
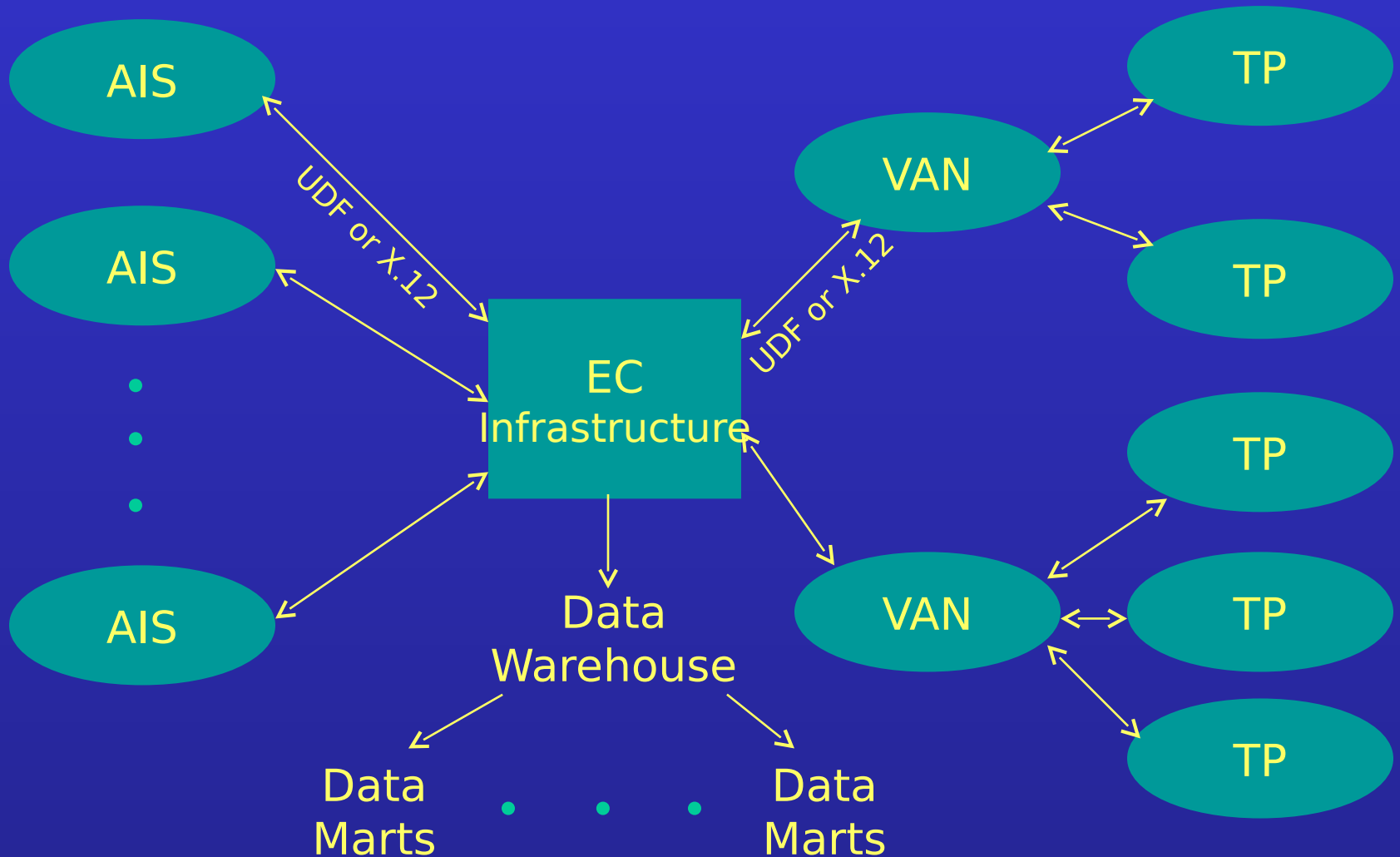
EBS also referred to as the ECPN

EBS Product Description

- Enterprise Business Server for formatted message communication, translation, routing, archival, retrieval, and auditability
- Runs on HP T520 processors under HPUX with EMC mass storage (Scalable)
- Custom integrated product for DoD with Oracle, Netscape Enterprise Server and TSI Mercator translator.
- COE Compliant

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High Level ECI Architecture

Federal EDI Systems

DAAS & EBS Systems

Commercial Trading Partners

Buyers, Payers, Shippers, etc...

EC Infrastructure

Industry Sellers, Shippers, etc...

Data Warehouse & Decision Support System

DOD Logistics EC Infrastructure Architecture

AIS

AIS

AIS

UDF or X.12

EC Infrastructure

Data Warehouse

Data Marts   .   .   .   Data Marts

VAN

VAN

UDF or X.12
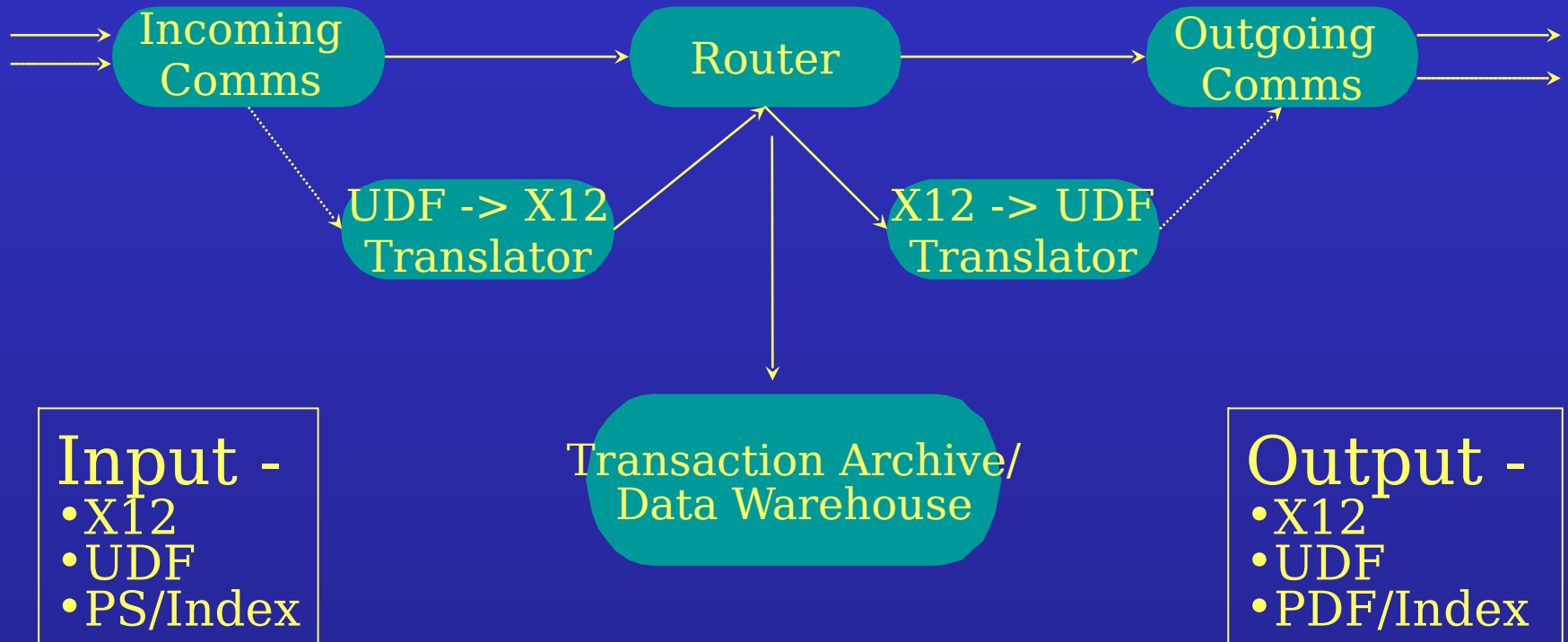
TP

TP

TP

TP

TP

AIS - Automated Information System   VAN - Value Added Network

ECI - DAAS & Enterprise Business Server (EBS)   TP - Trading Partner

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EBS - Data Flow Architecture

Incoming Comms → Router → Outgoing Comms

UDF -> X12 Translator

X12 -> UDF Translator

Transaction Archive/ Data Warehouse

Input -
- X12
- UDF
- PS/Index

Output -
- X12
- UDF
- PDF/Index

→ UDF Message
→ X12 Message

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Defense Travel System Accounting & Disbursing Systems

Navy

Disbursing Sys:
ADS
STARS OP
(CBA)

Acct Sys:
DIFMS
DWAS
IFAS
STARS FL/HCM
Legacy

Army

Disbursing Sys:
SRD-1

Acct Sys:
STANFINS
SIFS
SOMARDS

CAPS-W (CBA)*

Air Force

Disbursing Sys:
IPC

Acct Sys:
GAFS

Service Owned

Disbursing Sys:
IPC

Acct Sys:
TFS

Guard/Reserves Owned

Disbursing Sys:
SRD-1

Acct Sys:
ARROWS
AORS
AFCOS

CAPS-W (CBA)*

Other - DFAS

Disbursing Sys:
SRD-1

Acct Sys:
DBMS (DLA)
SABRS (MC)

CAPS-W (CBA)*

CUI

EBS

821udf/810 udf

820 udf/824 udf

821 udf
810 udf

820 udf
824 udf

821 udf/810 udf
820 udf/824 udf

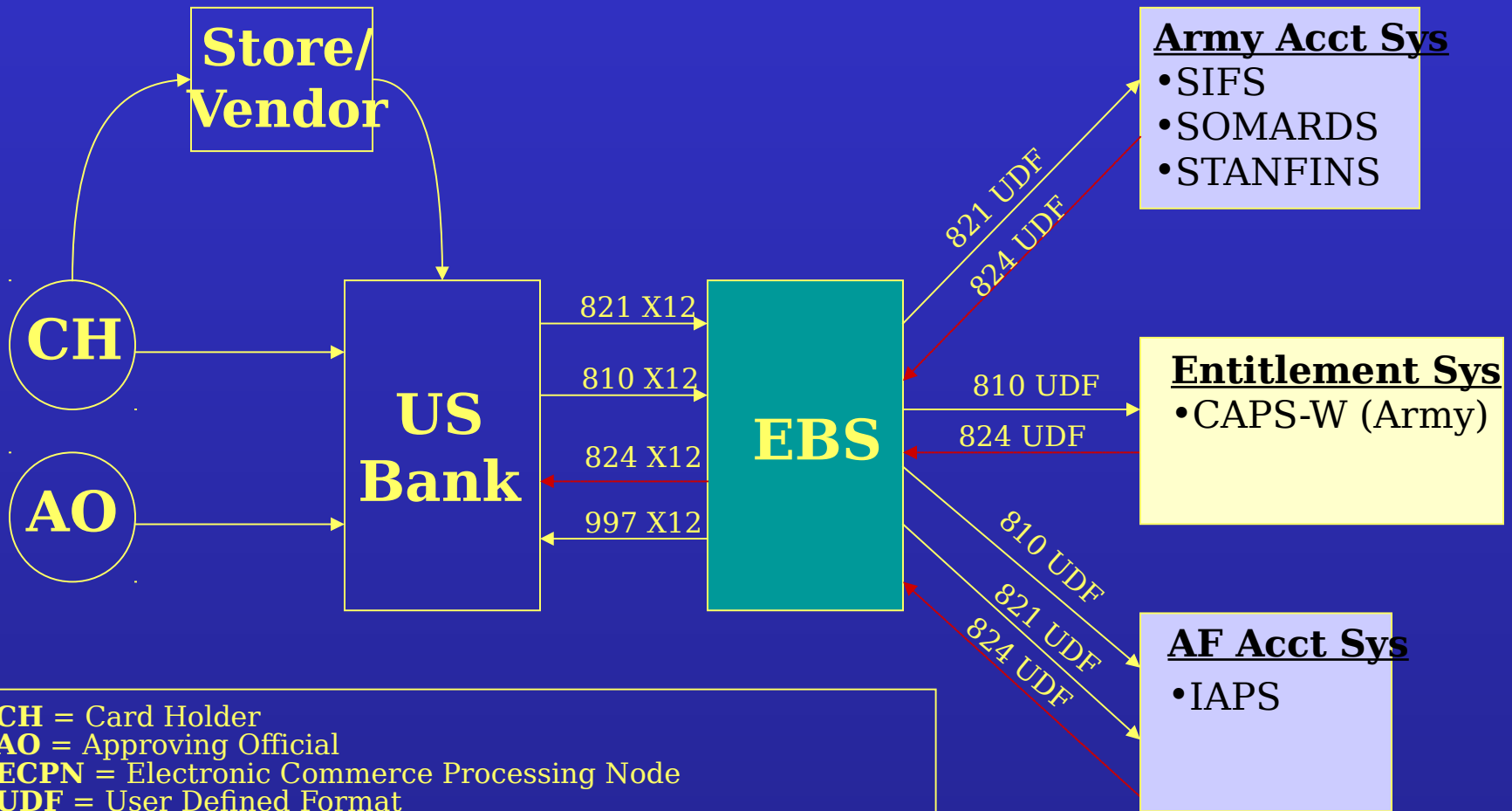821 udf/810 udf
820 udf/824 udf

821 udf/810 udf
820 udf/824 udf

821 udf/810 udf
820 udf/824 udf

820 udf/
824 udf

821 udf/
810 udf

Purchase Card

Store/Vendor

CH

AO

US Bank

821 X12
810 X12
824 X12
997 X12

EBS

821 UDF
824 UDF

Army Acct Sys
- SIFS
- SOMARDS
- STANFINS

810 UDF
824 UDF

Entitlement Sys
- CAPS-W (Army)

810 UDF
821 UDF
824 UDF

AF Acct Sys
- IAPS

CH = Card Holder
AO = Approving Official
ECPN = Electronic Commerce Processing Node
UDF = User Defined Format
SIFS - Standard Industrial Fund System
SOMARDS = Standard Operation and Maintenance Army Research & Development System
STANFINS = Standard Army Finance System
CAPS-W = Computerized Accounts Payable System for Windows
IAPS = Integrated Accounts Payable System

Indicates future functionality

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EBS - Communications

- EBS manages each communication end-point as a separate channel
  - AIS
  - VAN
  - Gateway
  - CCR
- Channels contain information about the connection site
  - Communication protocol
  - Message type (X12 or UDF)
  - Connection frequency or cycle time
- Connections and Protocols Supported
  - Serial (Kermit, ZMODEM, and CLEO)
  - Network (FTP)
  - E-Mail (SMTP and MIME)

- Transaction translation
  - Between User-Defined Format (UDF) and ANSI X12s
  - From Postscript to Portable Document Format (PDF)
  - From UDF to FDF/PDF (prototype)
- Generates ISA and GS X12 elements from look-up tables and system setup database

- Generates 824/997 translation acknowledgements
  - Always, or upon failure
  - Acknowledgements sent back to incoming channel or E-mail address

Any - to - Any Format is the objective

Translation - Fielded Translations

- Standard Army Automated Contract System (SAACONS)

- Standard Procurement System (SPS) EDI transactions

- Standard Procurement System (SPS) EDA transactions

- Integrated Garnishment System (IGS)

- Procurement Automated Data and Document System (PADDS)

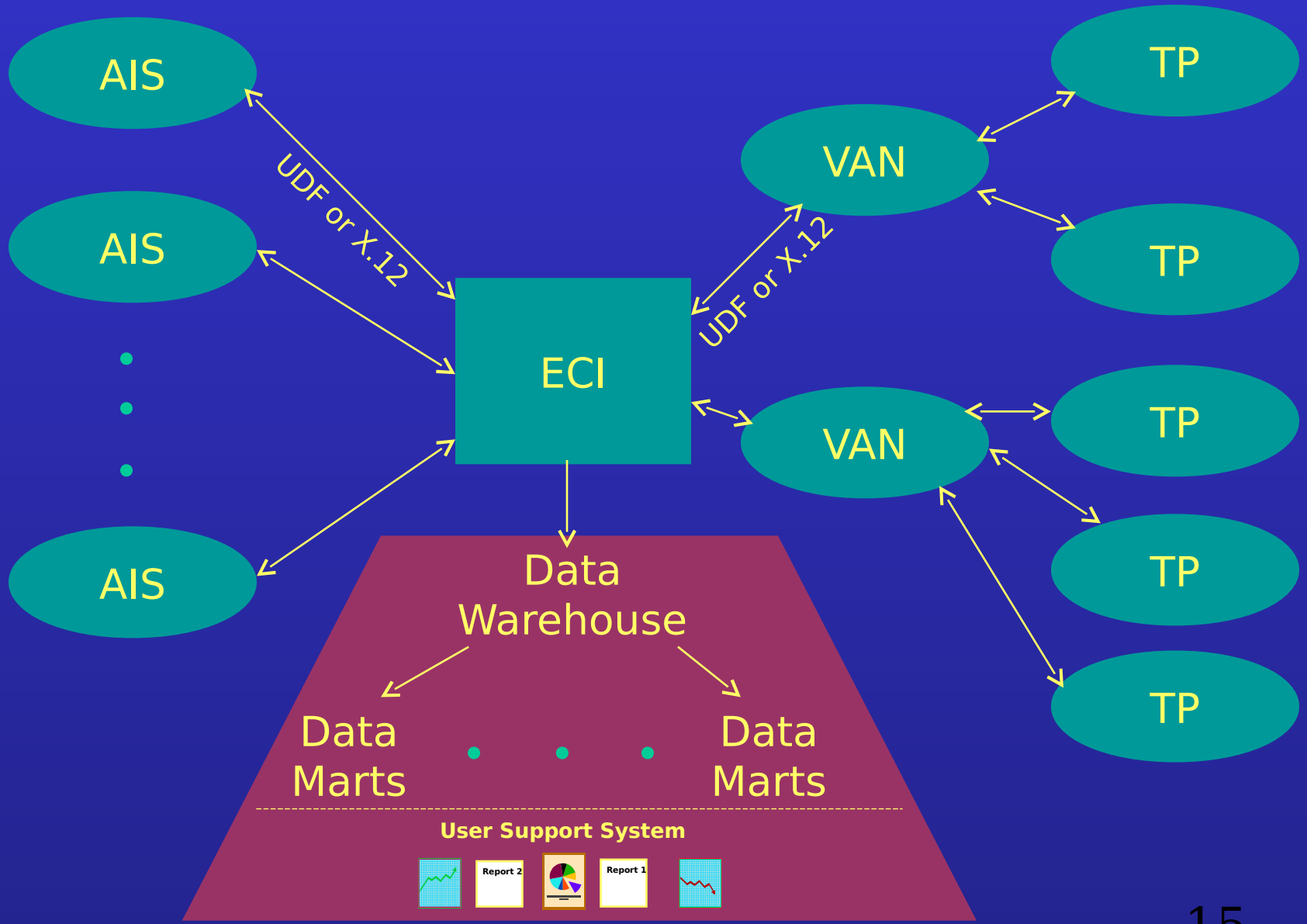- Integrated Paying and Collecting (IPC) with Electronic Funds Transfer (EFT)

- Route transactions by:
  - ISA07/08   - Incoming channel
  - GS03   - Incoming file name
  - VAN name   - Transaction Type

- Allows use of wild cards to perform routing

- One-to-one and many-to-many routing
  - Point -2- Point
  - One source to many destinations
  - Many sources to one destination
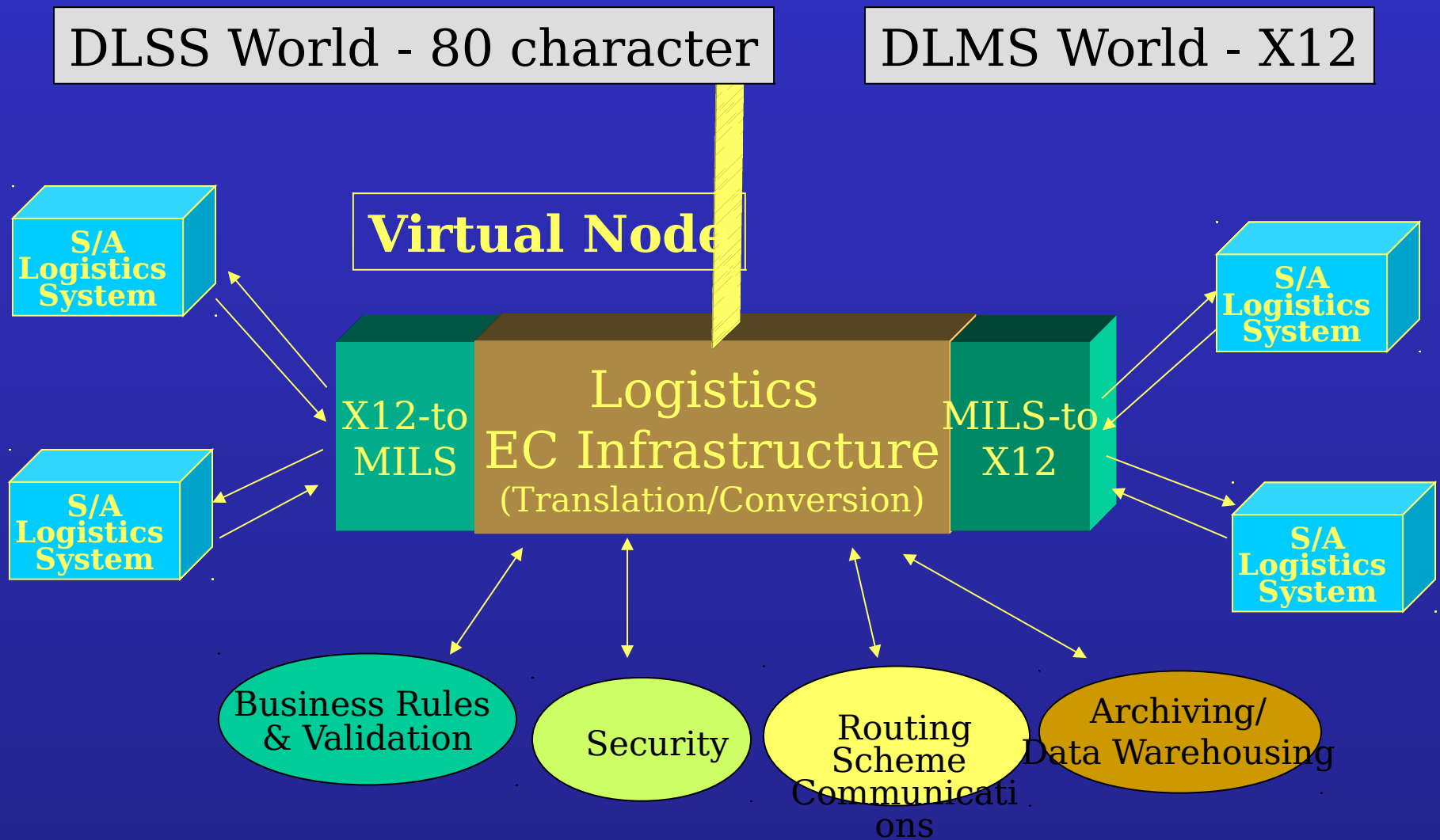 - Many sources to many destinations

- Data Warehouse
  - A repository of historical legacy data that is common to the enterprise, used to perform analysis

- Data Mart
  - Data extracted from the data warehouse that is specific to a subject area or department

- User Support System
  - A system that allows the knowledge worker to make strategic and tactical level decisions based on corporate information
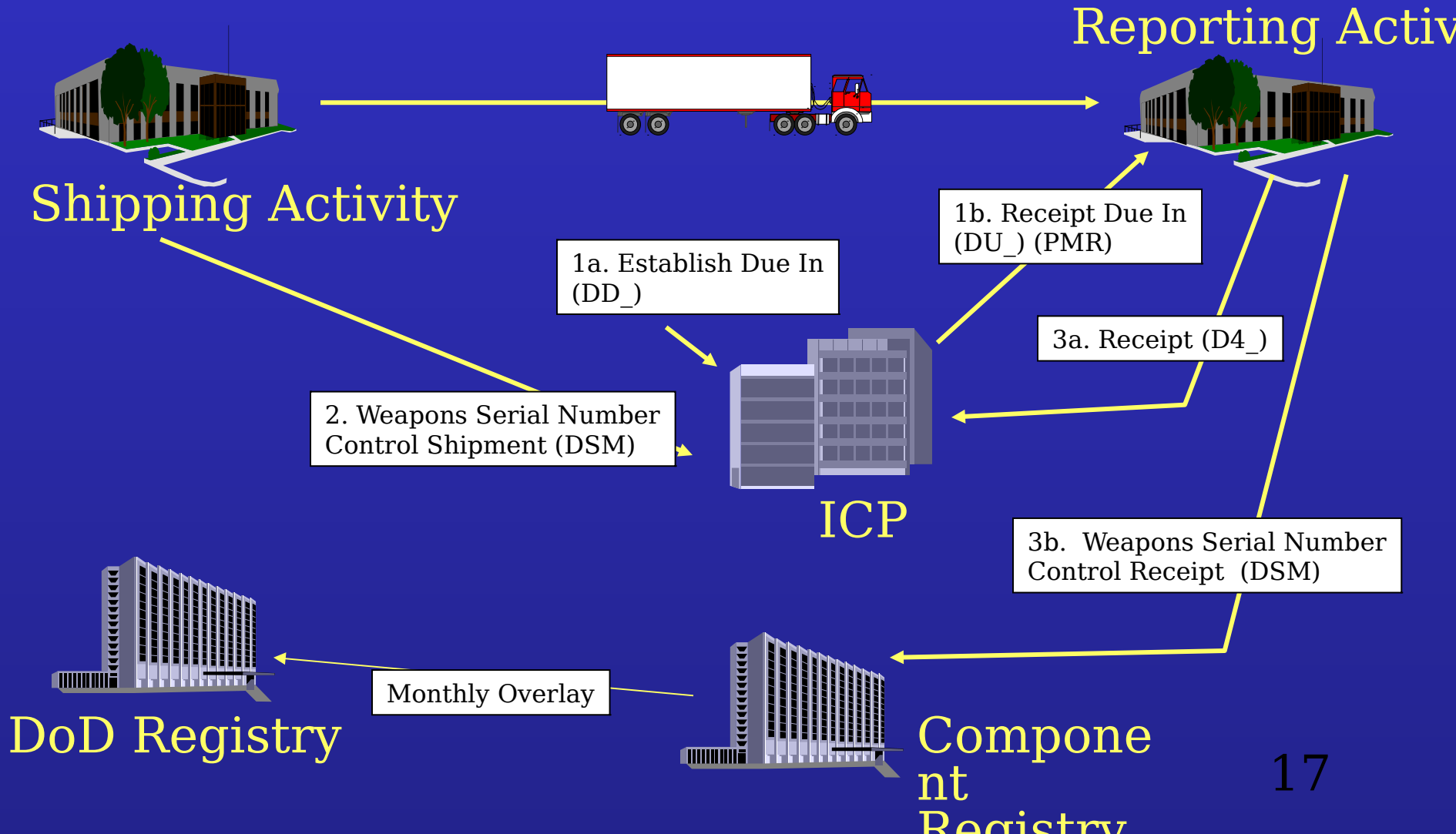
Functional Block Diagram - EC Warehouse Discussions

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Basic Logistics EB/EC System Functionality

DLSS World - 80 character

DLMS World - X12

Virtual Node

S/A Logistics System

S/A Logistics System

S/A Logistics System

S/A Logistics System

X12-to MILS

Logistics EC Infrastructure
(Translation/Conversion)

MILS-to X12

Business Rules & Validation

Security

Routing Scheme Communications

Archiving/ Data Warehousing

MILSTRAP Small Arms Serial Number Registration and Reporting

Reporting Activ

Shipping Activity

1b. Receipt Due In (DU_) (PMR)

1a. Establish Due In (DD_)

3a. Receipt (D4_)

2. Weapons Serial Number Control Shipment (DSM)

ICP

3b. Weapons Serial Number Control Receipt (DSM)

Monthly Overlay

DoD Registry

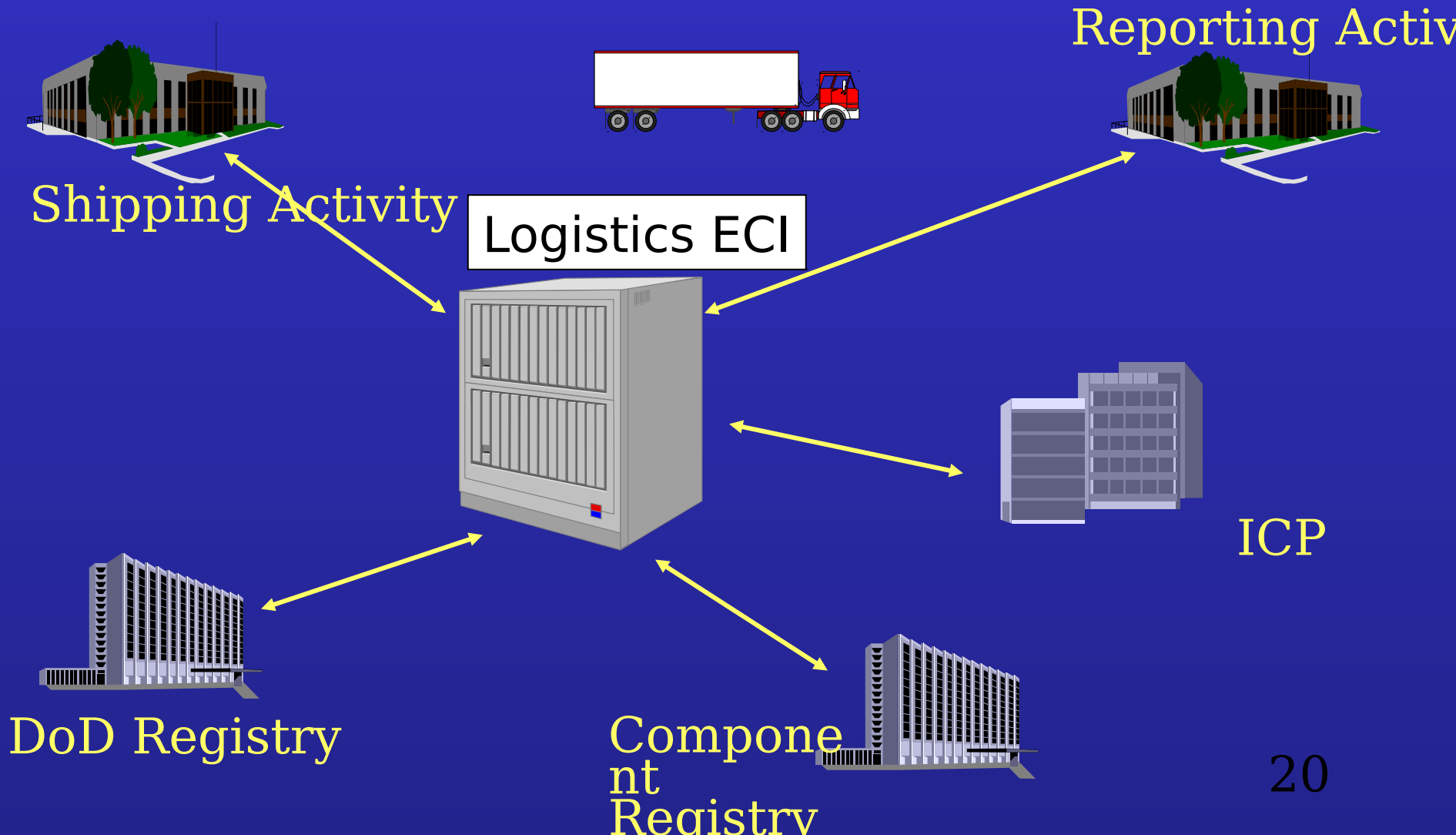Compone nt Registry

"Possible" Methodology

- Collect Systems that must interact/transfer information - by group/function (<u>spreadsheet</u>)

- Determine 'who' must get 'what' information

- Produce crosswalk to X12 (<u>Building Code</u>)   (MILS vs X12 data elements)

- Identify mandatory fields in X12 that must be provided (ECI, source of Business Rules).
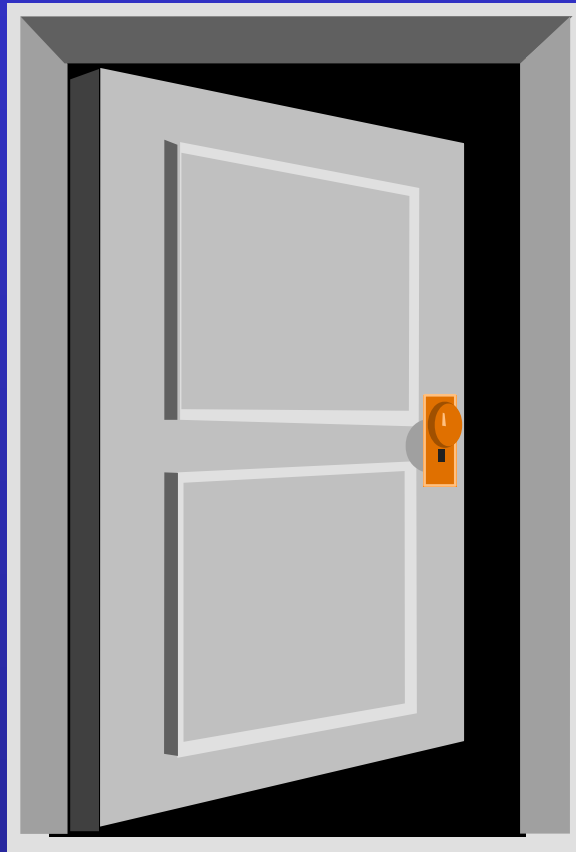
- Determine short term solutions to get the information that meet those field requirements

- Determine best format for transaction(MILS, UDF, X12, XML, etc)

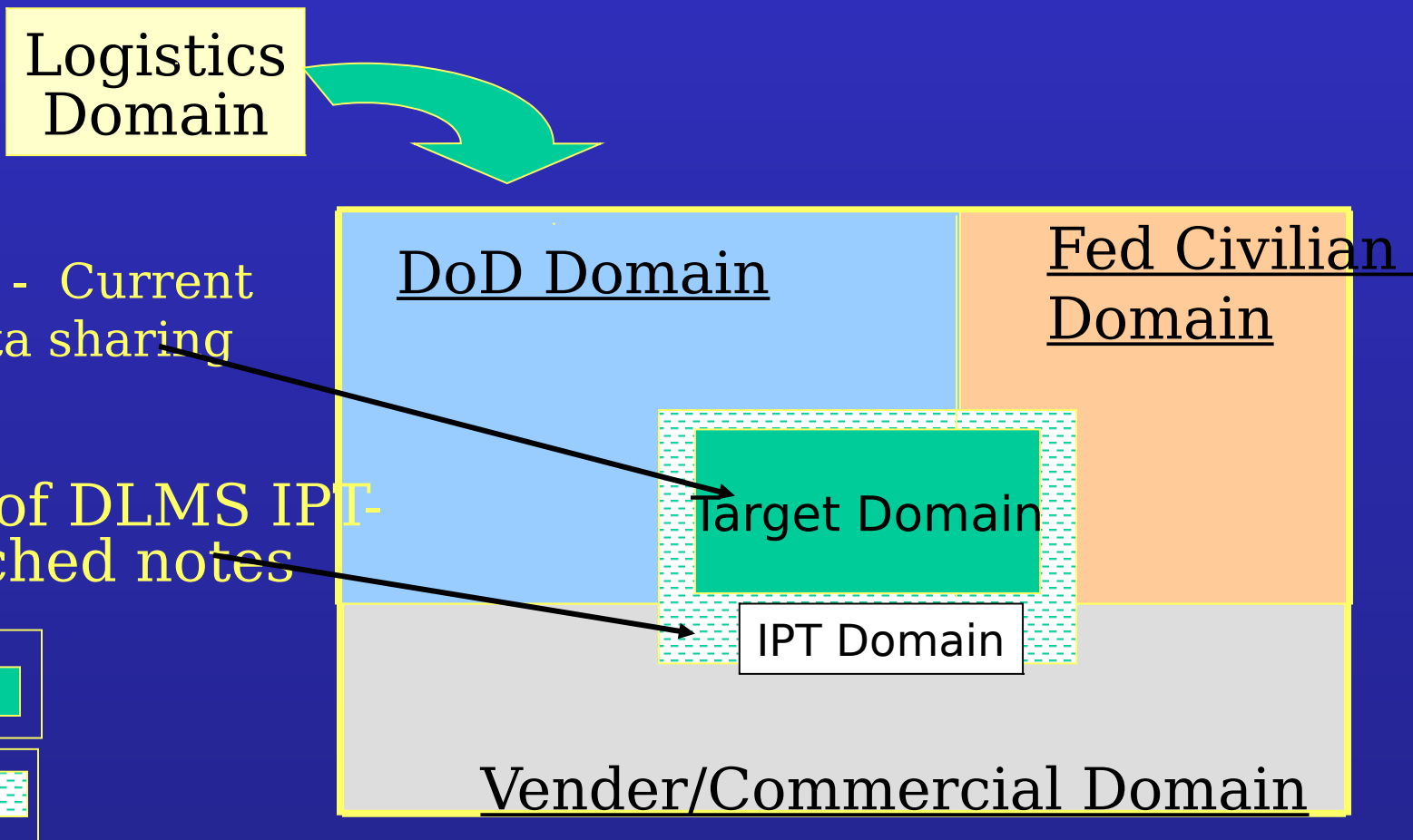Full understanding of interface requirements is key to success

Reporting Activ

Shipping Activity

Logistics ECI

ICP

DoD Registry

Compone
nt
Registry

Back-up Slides

Logistics Domain

"Target" - Current DLSS data sharing

"Focus" of DLMS IPT- see attached notes

DoD Domain

Fed Civilian Domain

Target Domain

IPT Domain

Vender/Commercial Domain

DLSS

DLMS

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Defense Finance and Account Systems Procurement Systems
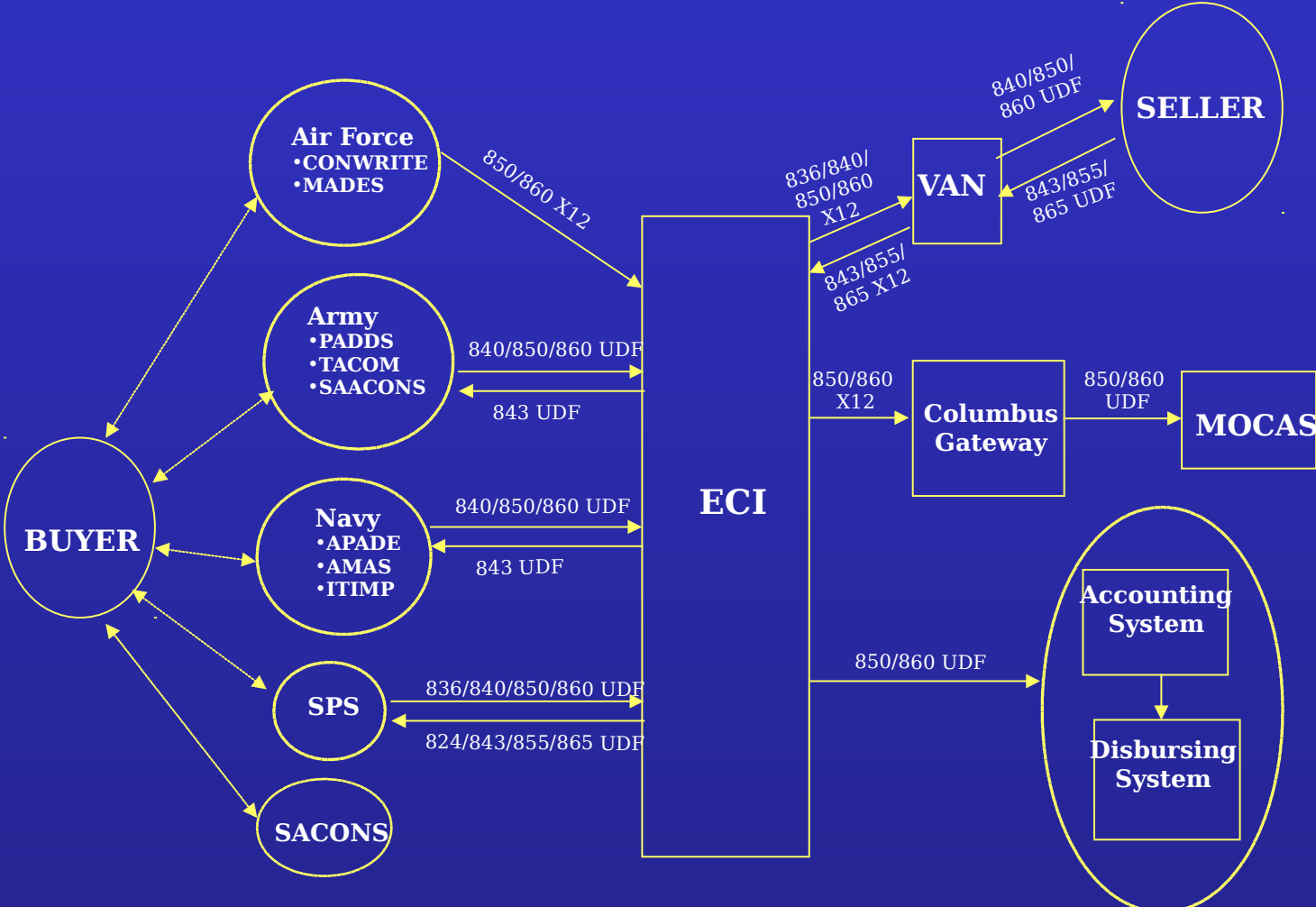
ECW - System Architecture

HP K-410

EC Warehouse

Autofeed Controller Program

ESB Columbus

Message Objects

Channel Db

TP Db

data push

Flat Files

Extract

Optical Disk

Message Object Archive

load staging

DW Db Staging

extract and load

DW Db ODS

extract and load

Metrics Db Metrics

ESB Ogden

DLA / DAASC

Database Administration Program

Backup to Physical Disk

USS Reporting Program

Report 1

Report 2

Report 3

web access

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